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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,066	11/19/2003	Rolf Hilgendorf	BUR920030068US1	1065
21918	7590	07/14/2005	EXAMINER	
DOWNS RACHLIN MARTIN PLLC 199 MAIN STREET P O BOX 190 BURLINGTON, VT 05402-0190			NGUYEN, MINH T	
			ART UNIT	PAPER NUMBER
			2816	

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/707,066

Applicant(s)

HILGENDORF ET AL.

Examiner

Minh Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-18 is/are allowed.
- 6) ☒ Claim(s) 1 and 3 is/are rejected.
- 7) ☒ Claim(s) 2, 4 and 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Applicant's amendment filed on 5/9/05 has been received and entered in the case. Claims 1-18 are pending. The argument presented therein overcomes some of the prior art rejections, and therefore, these are withdrawn. However, the prior art rejections to claims 1 and 3 are maintained and repeated for the reasons set forth below. This action is FINAL.

#### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 5,317,601, issued to Riordan et al.

As per claim 1, Riordan discloses an integrated circuit (Fig. 3), comprising:

a clock divider circuit (the combination of the following discussed elements)

comprising:

a counter (counter 60, column 4, lines 38-43) operatively configured to generate a plurality of first signals (M1, M2, D2 and D4) from a second signal (PLL4X), each one of said plurality of first signals having a first phase (the phases of the corresponding first

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signals) and said second signal having a second phase (the phase of the PLL4X signal);  
and

a mux (65, column 4, line 45) in electrical communication with said counter and operatively configured to output a selected one of said plurality of first signals (this is the function of a mux, column 4, lines 44-48); and

a phase detector (latch 77, column 5, lines 11-12) operatively configured to detect an offset between said first phase of said selected one of said plurality of first signals and said second phase of said second signal and generate a third signal representing said offset (as shown in Fig. 3, the offset at the output Q is generated by the selected one of the first signals in accordance to the second signal PLL4X. In other words, the difference in phase between the selected one of the first signals and the second signal is detected).

As per claim 3, the recited limitation is disclosed in column 4, lines 38-43, i.e.,  $n=2, 4, 8, \dots$ ; Further, because the selected one of the first signals is clocked by the second signal PLL4X as shown in Fig. 3, the selected one of the first signals is measured  $n/2$  times.

### *Response to Arguments*

3. Applicant's arguments filed on 5/9/05 have been fully considered but they are not persuasive.

Regarding the applicant's argument that latch 77 in figure 3 of Riordan is not a phase detector, but rather it is simply a delay element.

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A reference (US Patent No. 4,506,175, figure 1, latch 10, column 1, lines 51-67) has been cited to show that a D latch circuit which receives signals at the data and clock terminals functioned as a phase detector.

Regarding the argument that claim 1 requires the phase detector detects a variable offset between first and second signals.

The word variable is not found in the claim. It is noted that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Regarding the argument that in Riordan's latch circuit, there is no variability in the offset between the input signals.

The examiner notes that there is no variability claimed in the offset between the input signals.

#### ***Allowable Subject Matter***

4. Claims 2 and 4-5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 2 is allowable because the prior art of record fails to disclose or suggest the inclusion of a mesh delay and a delay circuitry configured as recited in the claim.

Claims 4-5 are allowable because the prior art of record fails to disclose or suggest the inclusion of a counter reset circuitry responsive to the third signal for performing the function recited in claim 3.

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5. Claims 6-18 are allowed.

Claims 6-10 are allowed because the prior art of record fails to disclose or suggest the inclusion of a synchronization initiation circuit coupled to each of the phase detectors.

Claims 11-18 are allowed because the prior art of record fails to disclose or suggest the inclusion of a step of resetting the divide by counter based upon the phase offset.

*Conclusion*

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Nguyen whose telephone number is **571-272-1748**. The examiner can normally be reached on Monday, Tuesday, Thursday, Friday 7:00-5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



2/1/05

Minh Nguyen  
Primary Examiner  
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